

County of San Luis Obispo

GENERAL SERVICES AGENCY

Janette D. Pell, Director

Cody VanDorn, Department Administrator

INVITATION TO BID #3616-13 PREVENTATIVE MAINTENANCE OF CENTRAL PLANT EQUIPMENT

July 30, 2013

The County of San Luis Obispo is currently soliciting bids for Preventative Maintenance of Central Plant Equipment, as noted.

Each bid shall specify each and every item as set forth in the attached specifications. Any and all exceptions must be clearly stated in the bid. Failure to set forth any item in the specifications shall be grounds for rejection. The County of San Luis Obispo reserves the right to reject all bids and to waive any informalities.

Please submit your bids on the attached form. They must be received at the office of the General Services Agency no later than 3:00 p.m., August 29, 2013.

All questions pertaining to the content of this Invitation to Bid must be made in writing via e-mail to Bob Eckman at: beckman@co.slo.ca.us. All questions will receive a response within 3 business days. The question and its response will be posted (anonymously) on the County's Purchasing web site located at: http://www.slocounty.ca.gov/GSA/Purchasing/Current_Formal_Bids_and_Proposals.htm. The County reserves the right to determine the appropriateness of comments/questions that will be posted on the website.

PRE-BID JOB WALK

A job walkthrough of the Central Plant equipment located at 976 Osos St and 2180 Johnson Ave in San Luis Obispo, California, is scheduled for Wednesday, August 7, 2013. Interested parties should meet at the reception desk in the lobby of the New Government Center, 1055 Monterey Street, San Luis Obispo, at 9:00 am. Attendance is highly recommended, but not mandatory. Each bidder is solely responsible for a prudent and complete personal inspection, examination, and assessment of the two Central Plants condition and/or any other existing condition, factor, or item that may affect or have an impact on the performance of services described by the requirements of this bid. The bidder shall not be relieved of responsibility for performance under the agreement for any reason whatsoever, including, but not limited to, the bidder's failure to observe existing conditions.

Any and all comments and suggestions are sincerely encouraged prior to the bid opening.

MISSY VILES
Buyer – GSA - Purchasing
mviles@co.slo.ca.us

County of San Luis Obispo Invitation to Bid #3616-13 July 30, 2013 Page 2 PREVENTATIVE MAINTENANCE OF CENTRAL PLANT EQUIPMENT

TO: ALL PROSPECTIVE BIDDERS

SUBJECT: LOCAL BIDDERS PREFERENCE

The County of San Luis Obispo has established a local vendor preference. All informal and formal bids for contracts will be evaluated with a 5% preference for local vendors. Note the following exceptions:

- 1. Those contracts which State Law requires be awarded to the lowest responsible bidder.
- 2. Public works construction projects.

A "local" vendor will be approved as such when, 1) It conducts business in an office with a physical location within the County of San Luis Obispo; 2) It holds a valid business license issued by the County or a city within the County; and 3) Business has been conducted in such a manner for not less than six (6) months prior to being able to receive the preference.

As of March 3, 1994 individual County Buyers evaluate bids considering the local vendor preference described above. The burden of proof will lie with bidders relative to verification of "local" vendor preference. Should any questions arise, please contact a buyer at (805) 781-5200. All prospective bidders are encouraged to quote the lowest prices at which you can furnish the items or services listed in County bids.

	YES	NO
Do you claim local vendor preference?		
Do you conduct business in an office with a physical location within the County of San Luis Obispo?		
Business Address:		
Years at this Address:		
Does your business hold a valid business license issued by the County or a City within the County?		
Name of Local Agency which issued license:		
Business Name:		
Authorized Individual: Title:		

County of San Luis Obispo Invitation to Bid #3616-13 July 30, 2013 Page 3 PREVENTATIVE MAINTENANCE OF CENTRAL PLANT EQUIPMENT

TO:	ΔΙΙ	PROSPECTIVE BIDDERS
10.	ALL	PROSPECTIVE DIDUCTO

SUBJECT: POLICY ON PURCHASING PRODUCTS MADE WITH OR CONTAINING

CHLOROFLUOROCARBONS (CFC's)

<u>Summary</u>

Many products contain chlorofluorocarbons (CFC's), a known depleter of ozone in the atmosphere. Under the U.S. Clean Air Act and the Montreal Protocol on Substances that Deplete the Ozone Layer, CFC production for use in industrialized nations is to be totally phased out by January 1, 1996. There are still many products on the market that contain CFC's or are made with CFC's. The Department of General Services, purchasing staff must identify products made with or containing CFC's and purchase alternative products whenever practical and possible.

<u>Policy</u>

To this end, it shall be the policy of the County of San Luis Obispo that all bidders, who wish to do business with the County are required to identify all products that contain CFC's or use CFC's in the manufacturing or shipping processes. Bidders are required to identify alternative products that do not use CFC's, for possible purchase by the County.

<u>Bidder Response</u>

	YES	NO		
Do any products offered herein contain CFC's or use CFC's in the manufacturing or shipping process?				
If yes, please offer an alternative product by copying bid forms and submitting an alternate bid. Will you offer an alternate?				
Please provide any other information that may be helpful to the County. Attachments are acceptable.				

County of San Luis Obispo Invitation to Bid #3616-13 July 30, 2013 Page 4 PREVENTATIVE MAINTENANCE OF CENTRAL PLANT EQUIPMENT

GENERAL CONDITIONS AND INSTRUCTIONS

- 1. All bids submitted by Seller to Purchaser should be submitted upon the attached bidder's form, completed and signed, (only typewritten or ink shall be accepted with no erasures or corrections unless properly authenticated by signature) in accordance with the instructions contained herein.
- 2. The issuance of this bid request creates no obligation on the part of the County and the County reserves the unconditional right at its option to either reject all bids or waive any irregularities or informalities therein. Each bid shall be in a separate sealed envelope with the bid number, name of bidder, title of the bid, date and time due showing on the outside of the envelope.
- 3. All prices must be firm for 45 days from the date of the bid opening and be inclusive. Upon award, prices will be in effect for the term of the contract.
- 4. If you offer any prompt payment discounts, please indicate this on your bid.
- 5. Awards will be made to realize the greatest savings to the County and may not necessarily be the lowest bid especially where services are of the utmost importance.
- 6. Submission of a signed bid will be interpreted to mean that the bidder has thereby agreed to all conditions, instructions, descriptions and specifications contained herein.
- 7. All materials included in the contract shall be in compliance with all Federal and State OSHA laws.
- 8. All applicable City, State, and Federal taxes and fees are to be included in the proposal.
- 9. The only terms that will be honored are those terms included in general and special conditions and instructions, purchase order or other documents issued by the County.
- 10. In the event of any conflicts or ambiguities between these instructions and State or Federal laws, regulations or rules, then the latter shall prevail.
- 11. Only one bid will be accepted per vendor.
- 12. Bidders may withdraw their bid either personally, by written request, or by telegraphic request confirmed in the manner specified above at any time prior to the scheduled closing time for receipt of bids. No bidder may withdraw their bid after the time set for the opening.
- 13. All time limits stated are of the essence. Any bids received after closing time stipulated will be returned unopened.
- 14. All bids must be submitted in a manner so they can be readily hole punched and placed in a standard legal size file folder.

County of San Luis Obispo Invitation to Bid #3616-13 July 30, 2013 Page 5 PREVENTATIVE MAINTENANCE OF CENTRAL PLANT EQUIPMENT

- 15. The County may make partial payments after a substantial portion of the merchandise has been delivered. On all items, a 10% retention will be withheld until all merchandise has been accepted.
- 16. Brand names are used to establish a level of quality only. Any alternates must be approved five (5) days prior to the bid opening date, by the Buyer, who will have the sole right to make the determination. If an alternate is submitted without going through the above- described process, the County will have the sole right to decide whether or not an alternate is acceptable.
- 17. Vendor agrees that it will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin and that it will comply with the "Contractor's Agreements" provisions of Presidential Executive Order No. 11246.
- 18. **NO FAXED** Bids will be accepted.
- 19. Return bid by August 29, 2013 at 3:00 p.m. to:

COUNTY OF SAN LUIS OBISPO GENERAL SERVICES AGENCY MISSY VILES, BUYER 1087 SANTA ROSA STREET SAN LUIS OBISPO, CALIFORNIA 93408

- 20. License Requirements: C-4, C-20 and C-38
- 21. This is a prevailing wage project.

22. INSURANCE REQUIREMENTS:

Contractor, at its sole cost and expense, shall purchase and maintain the insurance policies set forth below on all of its operations under this Agreement. Such policies shall be maintained for the full term of this Agreement and the related warranty period (if applicable) and shall provide products/completed operations coverage for four (4) years following completion of Contractor's work under this Agreement and acceptance by the County. Any failure to comply with reporting provision(s) of the policies referred to above shall not affect coverage provided to the County, its officers, employees, volunteers and agents. For purposes of the insurance policies required hereunder, the term "County" shall include officers, employees, volunteers and agents of the County of San Luis Obispo, California, individually or collectively.

1. MINIMUM SCOPE AND LIMITS OF REQUIRED INSURANCE POLICIES

The following policies shall be maintained with insurers authorized to do business in the State of California and shall be issued under forms of policies satisfactory to the County:

a. <u>COMMERCIAL GENERAL LIABILITY INSURANCE POLICY ("CGL")</u>
Policy shall include coverage at least as broad as set forth in Insurance Services

Office (herein "ISO") Commercial General Liability coverage. (Occurrence Form CG 0001) with policy limits not less than the following:

\$1,000,000 each occurrence (combined single limit); \$1,000,000 for personal injury liability; \$1,000,000 aggregate for products-completed operations; and, \$1,000,000 general aggregate.

The general aggregate limits shall apply separately to Contractor's work under this Agreement.

b. **BUSINESS AUTOMOBILE LIABILITY POLICY ("BAL")**

Policy shall include coverage at least as broad as set forth in Insurance Services Office Business Automobile Liability Coverage, Code 1 "Any Auto" (Form CA 0001). This policy shall include a minimum combined single limit of not less than one million (\$1,000,000) dollars for each accident, for bodily injury and/or property damage. Such policy shall be applicable to vehicles used in pursuit of any of the activities associated with this Agreement. Contractor shall not provide a Comprehensive Automobile Liability policy which specifically lists scheduled vehicles without the express written consent of County.

c. WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY INSURANCE POLICY ("WC/EL")

This policy shall include at least the following coverages and policy limits:

- 1. Workers' Compensation insurance as required by the laws of the State of California; and
- 2. Employer's Liability Insurance Coverage B with coverage amounts not less than one million (\$1,000,000) dollars each accident/Bodily Injury (herein "BI"); one million (\$1,000,000) dollars policy limit BI by disease; and, one million (\$1,000,000) dollars each employee BI by disease.

2. DEDUCTIBLES AND SELF-INSURANCE RETENTIONS

Any deductibles and/or self-insured retentions which apply to any of the insurance policies referred to above shall be declared in writing by Contractor and approved by the County before work is begun pursuant to this Agreement. At the option of the County, Contractor shall either reduce or eliminate such deductibles or self-insured retentions as respect the County, its officers, employees, volunteers and agents, or shall provide a financial guarantee satisfactory to the County guaranteeing payment of losses and related investigations, claim administration, and/or defense expenses.

3. **ENDORSEMENTS**

All of the following clauses and endorsements, or similar provisions, are required to be made a part of insurance policies indicated in parentheses below:

- a. A "Cross Liability", "Severability of Interest" or "Separation of Insured" clause (CGL & BAL);
- b. The County of San Luis Obispo, its officers, employees, volunteers and agents are hereby added as additional insured with respect to all liabilities arising out of Contractor's performance of work under this Agreement (CGL & BAL);
- c. If the insurance policy covers an "accident" basis, it must be changed to "occurrence" (CGL & BAL);
- d. This policy shall be considered primary insurance with respect to any other valid and collectible insurance County may possess, including any self-insured retention County may have, and any other insurance County does possess shall

County of San Luis Obispo Invitation to Bid #3616-13 July 30, 2013 Page 7 PREVENTATIVE MAINTENANCE OF CENTRAL PLANT EQUIPMENT

- be considered excess insurance only and shall not be called upon to contribute to this insurance (CGL, BAL & PL);
- e. No cancellation or non-renewal of this policy, or reduction of coverage afforded under the policy, shall be effective until written notice has been given at least thirty (30) days prior to the effective date of such reduction or cancellation to County at the address set forth below (CGL, BAL, WC/EL & PL);
- f. Contractor and its insurers shall agree to waive all rights of subrogation against the County, its officers, employees, volunteers and agents for any loss arising under this Agreement (CGL); and
- g. Deductibles and self-insured retentions must be declared (All Policies).

4. **ABSENCE OF INSURANCE COVERAGE**

County may direct Contractor to immediately cease all activities with respect to this Agreement if it determines that Contractor fails to carry, in full force and affect, all insurance policies with coverages at or above the limits specified in this Agreement. Any delays or expense caused due to stopping of work and change of insurance shall be considered Contractor's delay and expense. At the County's discretion, under conditions of lapse, the County may purchase appropriate insurance and charge all costs related to such policy to Contractor.

5. PROOF OF INSURANCE COVERAGE AND COVERAGE VERIFICATION

Prior to commencement of work under this Agreement, and annually thereafter for the term of this Agreement, Contractor, or each of Contractor's insurance brokers or companies, shall provide County a current copy of a Certificate of Insurance, on an Accord or similar form, which includes complete policy coverage verification, as evidence of the stipulated coverages. All of the insurance companies providing insurance for Contractor shall have, and provide evidence of, a Best Rating Service rate of A VI or above. The Certificate of Insurance and coverage verification and all other notices related to cancellation or non-renewal shall be mailed to: County of San Luis Obispo, GSA – Purchasing, ATTN: Missy Viles, 1087 Santa Rosa St., San Luis Obispo, CA, 93408

23. **INDEMNIFICATION REQUIREMENTS:**

Contractor shall defend, indemnify and hold harmless the County, its officers and employees from all claims, demands, damages, costs, expenses, judgments, attorney fees, liabilities or other losses that may be asserted by any person or entity, including Contractor, and that arise out of or are made in connection with the acts or omissions, relating to the performance of any duty, obligation, or work hereunder. The obligation to indemnify shall be effective and shall extend to all such claims and losses, in their entirety, even when such claims or losses arise from the comparative negligence of the County, its officers and employees. However, this indemnity will not extend to any claims or losses arising out of the sole negligence or willful misconduct of the County, its officers and employees.

The preceding paragraph applies to any theory of recovery relating to said act or omission by the Contractor, or its agents, employees, or other independent contractors directly responsible to Contractor, including, but not limited to the following:

- 1. Violation of statute, ordinance, or regulation.
- 2. Professional malpractice.

County of San Luis Obispo Invitation to Bid #3616-13 July 30, 2013 Page 8 PREVENTATIVE MAINTENANCE OF CENTRAL PLANT EQUIPMENT

- 3. Willful, intentional or other wrongful acts, or failures to act.
- 4. Negligence or recklessness.
- 5. Furnishing of defective or dangerous products.
- 6. Premises liability.
- 7. Strict Liability.
- 8. Inverse condemnation.
- 9. Violation of civil rights.
- 10. Violation of any federal or state statute, regulation, or ruling resulting in a determination by the Internal Revenue Service, California Franchise Tax Board or any other California public entity responsible for collecting payroll taxes, when the Contractor is not an independent contractor.

It is the intent of the parties to provide the County the fullest indemnification, defense, and "hold harmless" rights allowed under the law. If any word(s) contained herein are deemed by a court to be in contravention of applicable law, said word(s) shall be severed from this contract and the remaining language shall be given full force and effect.

24. **NON-EXCLUSIVE**: The County reserves the right to award more than one Purchase Order for this work. It is the intent for the County to hire a single contractor. However, additional contractors may be hired or County forces may be used as needed to meet demands.

25. **TERMINATION OF CONTRACT**:

WITH CAUSE: The County may immediately cancel this contract for cause. Due cause for termination shall include, but not be limited to failure to deliver according to schedule, failure to respond to technical questions in a satisfactory manner, and/or other reasons of unsatisfactory service.

WITHOUT CAUSE: Both the County and the contractor may, upon giving thirty (30) days written notice, terminate this contract with or without cause.

- 26. **PAYMENT PROCESS**: Contractor shall provide an original monthly invoice to the General Services Agency. Payment occurs after invoices are received, approved for payment by the Building Maintenance Superintendent and processed for payment. Payment is normally made within 30 days after the receipt of acceptable goods or an invoice, whichever is later.
- 27. <u>INDEPENDENT CONTRACTOR</u>: Selected contractor shall be considered an independent contractor and not an agent of or an employee of the County of San Luis Obispo. The contractor does not qualify for tax withholding, worker's compensation as a County employee, or other fringe benefits of any kind.
- 29. **TERM OF CONTRACT**: This contract shall be for a term of one (1) year, with an option to extend for two (2) additional, one (1) year terms with all terms and conditions remaining the same. Renewal shall be by mutual consent, in writing.

County of San Luis Obispo Invitation to Bid #3616-13 July 30, 2013 Page 9 PREVENTATIVE MAINTENANCE OF CENTRAL PLANT EQUIPMENT

SCOPE OF WORK

Contractor shall provide maintenance service on the Central Plant equipment located at 976 Osos St and 2180 Johnson Ave in San Luis Obispo, California, per the scope of work below. Work consists of both semi-annual and annual maintenance.

EQUIPMENT:

SLO DOWNTOWN CAMPUS CENTRAL PLANT

- TWO TRANE RTHC WATER-COOLED CHILLERS
- TWO EVAPCO AT 19-71 COOLING TOWERS
- TWO PK NM-1500 HOT WATER BOILERS

SLO HEALTH CAMPUS CENTRAL PLANT

- ONE YORK YCAL003 AIR-COOLED WATER CHILLER
- ONE EVAPCO AT 19-79 COOLING TOWER
- ONE PK N-1500 HOT WATER BOILER
- ONE TRANE RTAA-130 AIR-COOLED WATER CHILLER

SERVICES REQUIRED:

- Semi-Annual Service
- Annual Service

<u>SEMI-ANNUAL PM SERVICE TASKS</u>: TRANE WATER-COOLED CHILLERS

- 1. Check overall operation of chiller.
- 2. Review operator logs.
- 3. Check oil and refrigerant levels.
- 4. Check evaporator and suction pressures, reading should fall within: Evaporator Pressure...65-75 PSIG, Condenser Pressure...130-200 PSIG
- 5. Inspect refrigerant filter, frost indicates restricted filter.
- 6. Visually inspect the oil filter pressure drop indicator, advise if filter needs to be replaced.
- 7. Check electrical wiring, motors, and electrical components.

County of San Luis Obispo Invitation to Bid #3616-13 July 30, 2013 Page 10 PREVENTATIVE MAINTENANCE OF CENTRAL PLANT EQUIPMENT

- 8. Check operation of control circuit.
- 9. Check for refrigerant leaks.
- 10. Check refrigerant filter temperature drop at full load conditions.
- 11. Provide service log along with findings and comments for service recommendations.

ANNUAL PM SERVICE TASKS: TRANE WATER-COOLED CHILLERS

- 1. Review unit with operating personnel.
- 2. Provide and complete operating log. Number of starts. Number of hours. Measure and record system superheat, system sub cooling. Check oil level and refrigerant charge.
- 3. Compressor motor check. Record the following: Motor continuity check (pass/fail), Record motor nameplate amps. Meg motor. Check and tighten motor terminals, motor starter contacts and wiring. CAUTION: Use wrench on back-up nuts when checking tightness of the motor terminal stud nuts.
- 4. Compressor check. Check oil level. Perform suction/discharge valve pump down test. Perform visual and sound inspection.
- 5. Control circuits. Check setting and control point of the following controls: High Pressure Switch, Oil Pressure Switch, Crankcase Heater, Freeze Control, Chilled Water Flow Switch, Low Pressure Switch, Anti-Cycle Timer, Chiller Water Thermostat, Thermostatic Expansion Valve, and Compressor Capacity Control Valve. Tighten all connections in the control panel and starter panel.
- 6. Leak test chiller. Complete leak test using hand held detector and bubbles if necessary. Note leaks found and action taken and any further action required.
- 7. Oil analysis. Take oil sample for lab analysis.
- 8. Oil filter and refrigerant filter. Change oil filter. Test the differential pressure switch setting, making sure the switch opens on a pressure rise of 50 PSID. Check refrigerant filter temperature drop at full load conditions if possible. Frost formation indicates a restricted filter.
- 9. Condenser service. Check condenser approach temperatures. Check vent piping of all relief valves for presence of refrigerant to detect faulty relief valves. Clean condenser tubes using a Goodway Brush System.
- 10. Cover logs and Logging System with Operator. Review proper logging procedures with Operator.
- 11. Clean-up. Remove trash from mechanical room, wipe down chiller, and sweep around chiller.

County of San Luis Obispo Invitation to Bid #3616-13 July 30, 2013 Page 11 PREVENTATIVE MAINTENANCE OF CENTRAL PLANT EQUIPMENT

12. Provide log, comments and service recommendations.

SEMI-ANNUAL PM SERVICE TASKS: PK HOT WATER BOILER

- 1. Using the control panel, enter the information mode and scroll down to view the flame signal. When the boiler is firing, the signal will be "yes" and when the boiler is not firing, the signal will be "no".
- 2. Test high-limit control by reducing setting below the operating temperature. Burner should shut off. After readjusting the thermostat, press the button to reset the switch.
- 3. Test the operating temperature control by reducing temperature setting as necessary to check burner operation.
- 4. Check flue gas temperature at outlet. If there is a temperature increase over previous readings, the probable cause is soot or water-scale build-up on the tubes.
- 5. Test the water flow switch by trying to restart boiler with system pump off. The boiler should not operate and the control should display LOW GAS or HIGH GAS.
- 6. Test low gas pressure switch and high gas pressure switch utilizing procedures as outlined in operation manuals.
- 7. The boiler should fail to start and the control should display LOW GAS or HIGH GAS.
- 8. Inspect and clean the inlet screen of any accumulated dust or lint.
- 9. The relief valve should be tested as per manufacturer's instructions or every 2 months by lifting the lever for 5 seconds and allowing valve to snap shut. Please see the manufacturer's recommendations on the relief valve tag.
- 10. Provide log of all of the above with any comments or recommended repairs.

ANNUAL PM SERVICE TASKS: PK HOT WATER BOILER

- 1. In addition to the periodic, semi-annual service, perform the following:
- Inspect burner and ignition system. Wash the burner (do not scrub or use wire brush) to remove soot or foreign material that may have accumulated. See operation manual on "Cleaning the Burner". Check the burner and its' parts. If there is evidence of deterioration or corrosion, replace immediately.
- 3. Inspect combustion chamber. To access the heat exchanger, remove the front door and front inner wrapper. Note any signs of deterioration. Examine the gasket and replace if necessary, using a Harsco Industrial, Patterson-Kelly gasket kit only.

County of San Luis Obispo Invitation to Bid #3616-13 July 30, 2013 Page 12 PREVENTATIVE MAINTENANCE OF CENTRAL PLANT EQUIPMENT

- 4. Inspect and clean heat exchanger. Wash the copper tubes with water and non-corrosive soap. Be sure to rinse thoroughly. Green scale on the tubes indicates that the boiler is condensing which is detrimental to boiler life.
- 5. Examine the venting system. Check all joints and pipe connections for tightness. Check vent for corrosion or deterioration.
- 6. Inspect heating system for other problems.
- 7. Perform combustion analysis and adjust if necessary.
- 8. Leak test gas valves. Leak test should only be performed by qualified personnel who have been trained in the procedure.
- 9. Provide log of all of the above with any comments or recommended repairs.

SEMI-ANNUAL PM SERVICE TASKS: EVAPCO COOLING TOWERS

- 1. Clean cold water sump strainer.
- 2. Inspect air inlet louvers.
- 3. Check water distribution system and spray nozzles.
- 4. Check and adjust water level in cold water basin.
- 5. Check operation of all drive components.
- 6. Check belts and adjust tension if necessary.
- 7. Lubricate fan shaft bearings and drive train.
- 8. Check amp draw of fan motor.
- 9. Provide log of all of the above with any comments or recommended repairs.

ANNUAL PM SERVICE TASKS: EVAPCO COOLING TOWERS

- 1. In addition to the semi-annual tasks, perform the following:
- 2. Lubricate motor base adjusting screw.
- 3. Clean any debris and mud from the tower basin and strainer.
- 4. Inspect over-all condition of tower.
- 5. Provide log of all of the above with any comments or recommended repairs.

County of San Luis Obispo Invitation to Bid #3616-13 July 30, 2013 Page 13 PREVENTATIVE MAINTENANCE OF CENTRAL PLANT EQUIPMENT

<u>SEMI-ANNUAL PM SERVICE TASKS</u>: YORK AIR-COOLED SCROLL CHILLER <u>AND</u> TRANE RTAA-130 AIR-COOLED WATER CHILLER

- 1. Check overall operation of chiller.
- 2. Check the liquid line sight glasses.
- 3. Check suction pressure, discharge pressure and oil pressure.
- 4. Check electrical wiring, motors, and electrical components.
- 5. Check operation of control circuit.
- 6. Check for proper refrigerant and oil levels.
- 7. Check for refrigerant leaks.
- 8. Check condenser fans for clearance, bearing noise, etc.
- 9. Check fan belt tensions and adjust if necessary.
- 10. Provide log of all of the above with any comments or recommended repairs.

<u>ANNUAL PM SERVICE TASKS</u>: YORK AIR-COOLED SCROLL CHILLER <u>AND</u> TRANE RTAA-130 AIR-COOLED WATER CHILLER

- 1. In addition to the semi-annual tasks, perform the following:
- 2. Review unit with operating personnel.
- 3. Touch-up paint any exposed metal.
- 4. Provide and complete Operating Log. Measure and record system superheat. Measure and record system sub-cooling.
- Compressor motors. Perform motor continuity check (Pass/Fail). Check and tighten motor terminals, motor starter contacts and wiring. CAUTION: Use wrench on back-up nuts when checking tightness of the motor terminal stud nuts. Record motor nameplate amps. Meg motor.
- 6. Compressors. Check oil level. Perform suction/discharge valve pump-down test. Perform visual and sound inspection. Pull oil sample for laboratory analysis from each compressor.
- 7. Air cooled condenser fans. Manually rotate condenser fans to insure proper orifice clearance. Perform visual and sound inspection. Check fan belts where applicable.
- 8. Control circuits. Check setting and control point of the following controls: High Pressure Switch, Low Pressure Switch, Oil Pressure Switch, Anti-cycle Timer, Crankcase Heater, Chiller

County of San Luis Obispo Invitation to Bid #3616-13 July 30, 2013 Page 14 PREVENTATIVE MAINTENANCE OF CENTRAL PLANT EQUIPMENT

Water Thermostat, Freeze Control, Thermostatic Expansion Valve, Chilled Water Flow Switch, and Compressor Capacity Control Valve.

- 9. Leak test chiller. Complete leak test using hand held detector and bubbles if necessary. Note leaks found and any corrective action taken.
- 10. Refrigerant Filter Driers. Check refrigerant filter drier cores for excessive drop.
- 11. Condenser service. Check air cooled condenser cleanliness. Make cleaning recommendations.
- 12. Cover logs and logging system with operator. Review proper logging procedures with operator.
- 13. Provide log of all of the above with any comments or recommended repairs.

NOTES:

- 1. All servicing technicians are required to be trained, certified and thoroughly familiar with the equipment to be serviced. Please provide verification.
- 2. All parts furnished will be from original equipment manufacturer (OEM) or factory authorized.
- 3. Any cleaning process water must be kept from entering the storm water system as per Storm Water Regulations. Please check with Maintenance Department for assistance.
- 4. Both the semi-annual and annual services should be performed within the same fiscal year, for instance, between July 1 and June 30.
- 5. All work performed shall be coordinated with the County and shall not disturb, interfere, or interrupt the normal operation of the facility and/or tenants. All work performed not within normal operating hours shall be at the sole cost and expense of Contractor. The term OPERATING HOURS shall mean 7:00 a.m. through 5:00 p.m., Monday through Friday. The term NON-OPERATING HOURS shall mean 5:01 p.m. through 6:59 a.m. Friday through Monday.
- 6. Consult manufacturers operations and maintenance manuals for specific information regarding proper servicing techniques.
- 7. Please submit inspection forms in advance for approval by General Services Maintenance.
- 8. Contact for General Services Maintenance: Bob Eckman @ 805-781-5124

County of San Luis Obispo Invitation to Bid #3616-13 July 30, 2013 Page 15 PREVENTATIVE MAINTENANCE OF CENTRAL PLANT EQUIPMENT

SERVICE DESCRIPTION

Semi-Annual Service

RATES

BID SHEET

LOCATION

SLO Downtown Campus Central Plant

Signature

Federal Taxpayer ID# _____

BIDS <u>MUST</u> BE RECEIVED BY 3:00 P.M., AUGUST 29, 2013 AND WILL BE OPENED IN THE OFFICE OF THE GENERAL SERVICES AGENCY Bid #3616-13

□ Partnership

□ Other

City______ State_____ Zip Code_____

Telephone ______ FAX _____

☐ Individual/Sole Proprietor ☐ Corporation